

MATH 120E
Quiz 4
November 8, 2001

1. (5 points) Sketch the graph of a single function $f(x)$ with *all* of the following properties:
 - The zeros of $f(x)$ are at $x = -3$ and $x = 4$.
 - $f(x)$ has a horizontal asymptote at $y = -2$.
 - $f(x)$ has vertical asymptotes at $x = -1$ and $x = 2$.
 - The y -intercept of f is at -5 .

2. (5 points) A record spins on a turn-table at 78 RPM. An ant sits on the record at a spot 3 inches from the center. How long, in seconds, does it take the ant to travel 20 feet?